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IN THE CLAIMS:

1 – 10. (Withdrawn).

11. (Currently Amended) A communication network that includes nodes N_p, p=1, 2, 3..., and link bundles L_{pq}, q=1, 2, 3..., that interconnect nodes p and q, where said link bundles are carried over physical spans of transmission facilities, the improvement comprising:

a neighborhood M_p associated with each node N_p, where neighborhood M_p may be different in size from neighborhood M_q, where size of a neighborhood designates number of hops included in the neighborhood; and

node N_p comprises a processing module that receives information about spare capacity in neighborhood M_p and maintains a set of re-route plans that affect neighborhood M_p, or pointers to such plans

~~The network of claim 5~~ wherein said processing module, upon receiving information of a failure condition of a type for which node N_p is a backup node for purposes of re-routing, triggers execution of a pre-planned re-routing plan to bypass said failure condition when, in response to a query of a node N_q that is a control node for said failure condition, node N_p determines that node N_q will not trigger said execution of said pre-planned re-routing plan.

12. (Original) The network of claim 11 wherein said triggering comprises transmitting a re-route plan to each node in neighborhood M_p that is involved in a re-routing to bypass said failure condition.

13. (Original) The network of claim 11 wherein said triggering comprises transmitting a pointer for triggering execution of a re-route plan.

14. (Original) The network of claim 11 wherein said triggering comprises broadcasting a pointer for triggering execution of a re-route plan.

15 – 21. (Withdrawn).

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22. (Currently Amended) Apparatus including a plurality of ports, a cross-connect element coupled to said ports, and a control elements for effecting a path through said cross-connect element from a first port of said plurality of ports to a second port of said plurality of ports, the improvement comprising:

a processing module that determines, with respect to each of said ports, whether said apparatus is a control node that triggers rerouting in response to a failure indication associated with said ports, or is a backup node that triggers rerouting in response to a failure indication associated with said ports only when another apparatus is unresponsive;

wherein said processing module is designed to receive status change information from other apparatus that is structurally the same as said apparatus that is connected to said apparatus via said ports, and broadcasts the received status change information to said ports; and ~~The apparatus of claim 19~~ wherein said processing module receives status change information with a rebroadcast index, and rebroadcasts said status change information following an incrementing of said rebroadcast index.

23. (Currently Amended) Apparatus including a plurality of ports, a cross-connect element coupled to said ports, and a control elements for effecting a path through said cross-connect element from a first port of said plurality of ports to a second port of said plurality of ports, the improvement comprising:

a processing module that determines, with respect to each of said ports, whether said apparatus is a control node that triggers rerouting in response to a failure indication associated with said ports, or is a backup node that triggers rerouting in response to a failure indication associated with said ports only when another apparatus is unresponsive;

wherein said processing module is designed to receive status change information from other apparatus that is structurally the same as said apparatus that is connected to said apparatus via said ports, and broadcasts the received status change information to said ports; and ~~The apparatus of claim 19~~ wherein said communication module receives status change information with a rebroadcast index, and rebroadcasts said status change information, with said rebroadcast index incremented, but only if said rebroadcast index is less than a preselected value.

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24 – 46. (Withdrawn).

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